REMARKS

In a conventional silent chain link plate, as shown in Suzuki, Kotera, and Matsuda for example, and also in Applicants' FIG. 7, the concave bottom surface between the teeth of the link plate is in the shape of an arc which is tangent to the opposed inside tooth faces. In contrast, in the Applicants' invention, as best shown in FIGs. 2 and 6, the arc-shaped bottom surface of each link plate is scooped out more deeply than an arc tangent to the opposed inside tooth faces. As explained in the specification, at page 21, line 27 to page 22, line 17, when the bottom surface 3 is scooped out deeper than the arc-shaped bottom surface of a conventional link plate, the link plate becomes lighter, but the concave profile still makes it possible to disperse stresses uniformly.

The above-described feature has been incorporated into claim 1 by the language:

> "wherein the concave bottom surface of each of said link plates is an arc-shaped surface scooped out more deeply than an arc tangent to said opposed inside tooth faces."

This feature does not appear in the art relied upon in the rejection of claims 1-3, namely Kotera and Matsuda. Nor does it appear in the other art of record, except that Avramidis shows a similar, scooped-out, region in a link plate. In Avramidis, the inner flanks of the link plates are disposed at angles quite different from the angles of the outer flanks, and accordingly, the scooped-out region is needed to accommodate the tips of the sprocket teeth.

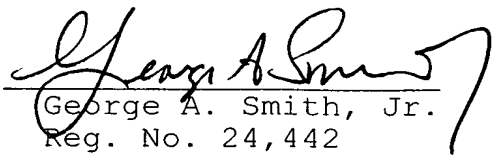
This raises the question whether or not it would have been obvious in view of Avramidis to provide scooped out regions in a chain formed shaping the teeth of Kotera as taught by Matsuda. We submit that this modification would not have been obvious. If the teeth of Kotera's link plates were shaped as taught by Matsuda, the contact between the leading inner flank of the link plate and the leading face of the

sprocket tooth would proceed as in Matsuda's FIGs. 9-12, until the symmetrical engagement at regions including points g an g' is established as depicted in FIGs. 8 and 13. As explained by Matsuda, in the U.S. patent '983 at column 5, lines 45-52, the tooth structure is designed in this way in order to avoid causing sudden or sharp impact on the sprocket tooth surface.

If this tooth structure according to Kotera, as modified in view of Matsuda, were further modified in accordance with Avramidis to provide an arc-shaped surface scooped out more deeply than an arc tangent to the opposed inside tooth faces, the resulting chain would have either of two possible results. A large scooped-out region would eliminate contact at points g an g', contrary to Matsuda's objective. On the other hand, if the scooped out region were a very narrow region between points g and g', it would not provide clearance for the sprocket tooth, and would therefore not achieve the same result as accomplished in Avramidis. In either case, Avramidis would not be perceived by a person of ordinary skill in the art as suggesting a useful modification to a Kotera chain modified in view of Matsuda.

For the above reasons, we submit that the invention as now set forth in claim 1, as amended, is neither anticipated nor shown to have been obvious by the art of record, and should be found allowable. Favorable reconsideration and allowance of this application are requested.

Respectfully submitted,
HOWSON & HOWSON

By 

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